



Considerations for Analysis of HSLS:09 Data

Module Objectives

Describe the analysis considerations for using information from HSLS:09 regarding

- Similarities and differences of HSLS:09 with past high school longitudinal studies
- State-representative data
- Student psychosocial measures
- Working with the data files
- Public-use data files vs. restricted-use data files

Secondary Longitudinal Studies Program

- [High School & Beyond \(HS&B\)](#)
- [National Education Longitudinal Study of 1988 \(NELS:88\)](#)
- [Education Longitudinal Study of 2002 \(ELS:2002\)](#)
- [High School Longitudinal Study of 2009 \(HSLs:09\)](#)

Similarities

- Web-based self-administered assessment
- Commitment to collecting high school (grades 9-12) transcripts
- A nationally representative school sample with an oversample of private schools and student numbers that are sufficient for subgroup reporting by major race/ethnicity categories, including Asians
- Commitment to following the cohort beyond high school
- Commitment to identifying and following high school dropouts
- Contextual samples of parents and teachers
- A school administrator survey
- An ability-adaptive assessment battery as in NELs and ELS
- Production of a general purpose dataset that will support a broad range of descriptive and interpretive reporting

Differences

- Use of a computer-administered assessment and student questionnaire in a school setting
- An assessment that focuses on algebraic reasoning
- Use of computerized (web/computer-assisted telephone interview) parent, teacher, administrator, and counselor questionnaires
- Inclusion of a counselor survey to document school course and program assignment policies and procedures
- Starting point in the fall of ninth grade, the traditional beginning of high school
- Enhanced emphasis on the dynamics of educational and occupational decision-making
- Enhanced emphasis on science, technology, engineering, and mathematics (STEM) trajectories
- Follow-up in spring of 11th grade, including follow-up mathematics assessment

Differences (Continued)

- Concern with general trends in youth transition, not grade-based specific comparisons with prior spring cohorts of eighth graders, sophomores, and seniors
- Linkage to selected state administrative data systems and augmentation of selected state public school samples to render them state-representative

State-Representative Data

- California
- Florida
- Georgia
- Michigan
- North Carolina
- Ohio
- Pennsylvania
- Tennessee
- Texas
- Washington

NHES Design and Data Collection (Continued)

- From 1991-2007 NHES was conducted using list-assisted random digit dialing (RDD) and computer-assisted telephone interviewing (CATI) methodologies
- Data were collected between January and June approximately every other year
- Interviews were conducted in English and Spanish
- In 2012 and for future planned collections, the NHES was conducted by mail using Address-Based Sampling (ABS)
 - Involves sampling from a frame, or list, of addresses that has near-universal coverage of households
 - Available from the US Post Office Address Management System
 - Provides greater coverage than RDD

Subsetting Data to a Particular State Level Public School Sample

X1STATESAMPL State		X1STATESAMPL State	
1	California	7	Pennsylvania
2	Florida	8	Tennessee
3	Georgia	9	Texas
4	Michigan	10	Washington State
5	North Carolina	-7	Other
6	Ohio		

Sample Code for Each Type of Program: North Carolina Example

Software	Example Code
SAS	IF X1STATESAMPL=5
Stata	KEEP IF (X1STATESAMPL==5)
SPSS	SELECT IF (X1STATESAMPLEQ 5)

State-Representative Data: Analytic Weights

HSLs:09 analysis files	Universe	Variable name	Nonresponse-adjusted component(s) in each weight
hsls09_school	All study-eligible schools	W1SCHOOL	School
hsls09_student	All study-eligible 9 th grade students	W1STUDENT	Student
		W1PARENT	Student*Parent
		W1SCITCH	Student*Science Teacher
		W1MATHTCH	Student*Math Teacher

School Response Rates by State

A	B	C	D
Public school sample	School #Resp	Rate	Wtd Rate
Total	770	51.3	58.5
California	50	43.8	36.3
Florida	40	43.2	49.9
Georgia	50	61.0	67.6
Michigan	50	55.3	68.4
North Carolina	50	55.2	64.5
Ohio	40	50.0	62.5
Pennsylvania	40	48.9	51.0
Tennessee	50	74.6	79.0
Texas	50	42.9	58.2
Washington	40	48.9	37.6
Other States	310	51.6	60.1
Column Descriptions:			
A – Public school category			
B – Number of responding schools, rounded to the nearest ten			
C – Unweighted percent of responding schools			
D – Weighted percent of responding schools calculated with school base weight			

Student Response Rates by State

A	E	F	G
Public school sample	Student #Resp	Rate	Wtd Rate
Total	17,510	84.8	85.7
California	1,110	86.3	85.0
Florida	760	79.8	79.7
Georgia	1,000	81.9	83.3
Michigan	1,100	88.6	88.8
North Carolina	1,080	82.5	84.9
Ohio	1,010	82.0	82.6
Pennsylvania	990	86.4	87.8
Tennessee	1,110	88.9	89.9
Texas	1,150	85.1	86.4
Washington	900	82.2	83.1
Other States	7,300	85.1	85.9

Column Descriptions:
A – Public school category
E – Number of responding students with questionnaire/assessment data within responding schools, rounded to the nearest ten
F – Unweighted percent of responding students with questionnaire/assessment data within responding schools
G – Weighted percent of responding students with questionnaire/assessment data within responding schools calculated with student base weight

Student Psychosocial Measures

HSLS:09 collected information on student's

- Self-efficacy in math and science
- Attitudes about school, math, and science
- Who they talk(ed) with about education and career plans

Comparisons with other secondary school studies (i.e., NELLS:88 and ELS:2002)

- Achievement growth
- School effectiveness
- Social capital
- Social attainment
- Human capital

Working With the Data Files

- School characteristics
- Teacher data not representative of all teachers
- Parent subsample
 - [Weights](#) that support analyses with parent data
- Specific special education not available

Public-use Data Files vs. Restricted-use Data Files

Public-use Files

- Available on the HSLs website in three software-based formats (SPSS, SAS, and Stata) and as an ASCII file
- Some student and school data suppressed (coded as -5) in file
- Support only replication techniques for complex sample variance estimation, as PSU and strata identifiers are suppressed

[Restricted-use](#) Files

- Include state-representative data for ten states, school characteristics, and more detailed information
- Available in SPSS, SAS and Stata formats

Module Summary and Resources

Summary

- Similarities and differences of HSLs:09 with past high school longitudinal studies
- State-representative data
- Student psychosocial measures
- Data file considerations
- Public-use data files vs. restricted-use data files

Resources

- [HSLs:09 Homepage](#)
- [High School & Beyond \(HS&B\)](#)
- [National Education Longitudinal Study of 1988 \(NELS:88\)](#)
- [Education Longitudinal Study of 2002 \(ELS:2002\)](#)
- [HSLs:09 Base Year to First Follow-up Data File Documentation, Chapter 8](#)
- [Acquiring Micro-level NCES Data](#)